Subcommittee on Water and Power of the U.S. House of Representatives Committee on Resources

Implementation of the California plan for the Colorado River – Opportunities and Challenges

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Testimony provided by:

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Introduction

Thank you for the invitation to participate in this important hearing. The Salton Sea Authority is pleased to offer our views of how the restoration of the Salton Sea can be accomplished while at the same time moving forward with the California Plan. As you have requested, my testimony will focus on the relationship between the California plan for the Colorado River and restoration of the Salton Sea.

I would also like to thank the members of the Salton Sea Congressional Task Force for their support for our efforts and those of the many federal agencies involved in the important work that we are engaged in to plan, design, operate and test restoration projects that are economically and environmentally sound.

I am the Executive Director of the Salton Sea Authority. The Salton Sea Authority is an agency that was established in 1993 under the State of California's joint powers agency statutes. The Salton Sea Authority was formed to direct and coordinate actions related to improvement of water quality and stabilization of water elevation and to enhance recreational and economic development potential of the Salton Sea and other beneficial uses. Notably, the Authority was formed by four agencies with direct and significant stakes in the region and the health of the Salton Sea: Imperial Irrigation District, Imperial County, Coachella Valley Water District and Riverside County (see Exhibit 1, Salton Sea Authority background). State legislation passed last year will allow the Torres Martinez Desert Cahuilla Tribe to be a full member of the Authority in the future.

I was hired as the Authority's first and only executive director in late 1997. Since that time, I have managed and co-managed the Salton Sea Authority's environmental compliance, engineering design public outreach, governmental affairs, and scientific efforts. I have an extensive background in environmental policy and planning (see Exhibit 2, Tom Kirk's Qualifications).

Background

The Salton Sea Authority is not opposed to the Quantification Settlement Agreement nor, necessarily, to the transfer of water from the Imperial Irrigation District (IID) to the San Diego County Water Authority and the Coachella Valley Water District and/or Metropolitan Water District of Southern California. The Salton Sea Authority understands the need and generally supports the implementation of the California 4.4 Plan,

which is designed to reduce California's use of Colorado River water. However, the Salton Sea Authority is deeply concerned about how water will be transferred and the environmental effects of the water transfers. The Salton Sea Authority Board of Directors has adopted the following positions with respect to water transfers:

- Oppose projects which significantly lower the level of the Sea;
- Insist that water transfers comply with environmental laws;
- Urge that water transfers are accomplished consistent with the goals and objectives of full Sea restoration.

(see Exhibit 3: Salton Sea Authority Resolution No. 02-02)

The Salton Sea is one of the most important ecosystems in the United States for birds (see Exhibit 4: Excerpts from the Guide to the Salton Sea Restoration Project Alternatives). As proposed, water transfers could make restoration of the Salton Sea infeasible and have other significant impacts on the health of the environment and economics of the Coachella and Imperial Valleys.

The proposed project (Proposed Project) as described in the IID Water Conservation and Transfer Project Draft Environmental Impact Statement/Environmental Impact Report[1] and Draft Habitat Conservation Plan (Transfer EIR), contractual provisions in the agreement between IID and San Diego County Water Authority and public pronouncements indicate that water conservation will occur through reducing or eliminating tail water and improving delivery systems in the Imperial Valley. Virtually all of the water conserved in this manner would be water that would otherwise flow to the Sea. The inevitable result would be significant reductions in inflows to the Sea. In order to restore and maintain the Sea, it is vital to maintain inflows into the Sea that are close to historical averages. Significant reductions in inflows to the Sea will accelerate the Sea's salinity increase beyond our ability to remediate, leading to the death of the Sea as we know it.

On the other hand, if conservation methods are mitigated as suggested under the Transfer EIR's Habitat Conservation Plan 2 and/or implemented through a water generation alternative that employs fallowing, most, and possibly all, of the impacts at the Sea can be avoided. The reason: water conserved through fallowing is mostly, and can be completely, associated with crop evapotranspiration. Hence, most, if not all of the water generated and transferred would not have ended up in the Sea anyway, it would have been consumed in the growing process. (see Exhibit 5, Riverside Press Enterprise May 31, 2002, *Water pits land against sea* article and Exhibit 6, Desert Sun June 4, 2002, *Water transfer rhetoric shifts to land* article). Exhibit 7, Conservation Methods Powerpoint Presentation, illustrates the different hydrological impacts of fallowing and efficiency improvement.

Fallowing is not a perfect solution: it may cause economic impacts, particularly job impacts. Aggravating the difficult economic conditions in the Imperial Valley is a real concern. The Salton Sea Authority resolution (Exhibit 3) recognizes that both environmental and economic issues need to be satisfactorily addressed:

- water transfer solutions must properly mitigate impacts on the Salton Sea and address economic and social impacts in the Imperial and Coachella Valleys.

Proposed Conservation/Transfer Project's[2] Impact on Restoring the Sea

The attached excerpts from "Draft Assessment of Salinity and Elevation Control for Varied Inflow" (Exhibit 8) clearly demonstrates the tremendous cost implications that a reduction of inflows will have on restoration efforts. As Table 2 and Figure 9 of Exhibit 8 demonstrate, restoration is projected to cost about $250 million, present value, under "current inflows", and balloon to over $2 or $3 billion or more under the reduced inflows envisioned in the Draft EIS/EIR. Whether restoration costs start at $250 million or $500 million or some other amount, reduced inflows have a dramatic effect on restoration costs; a Sea that is made smaller and saltier is very difficult to "restore". That cost -difference, between restoring the Sea under current inflows and restoring the Sea under reduced inflows is staggering. Put another way, the impact of reducing inflows on restoration costs range between $200 and $300 per acre-foot of water reduced per year. This, of course, is the approximate price of the water provided for in the agreement between the IID-SDCWA. You can understand why the QSA parties do not want to link restoration and the Proposed Project; such a link would likely make the deal economically infeasible.

The Proposed Project does not take into account this dramatic impact on the cost of restoration in the EIR. There has been some discussion about applying the estimated costs for the Proposed Project's habitat conservation plan, assumed in the Transfer EIR to be between $350 million and $800 million, to the restoration project, if a restoration project is authorized. More recent estimates of the Proposed Project's environmental costs have been quoted in the low one hundred million dollars. Federal legislation has been introduced to fund the environmental costs associated with the Proposed Project; the legislation caps those costs at $60 million (H.R. 2764, Colorado River Quantification Settlement Facilitation Act) and provides a mechanism to apply that funding to restoration of the Sea, if restoration is authorized. Whether the Proposed Project's and/or legislative financial contributions to restoration are $60 million or $160 million, if the Proposed Project's impact on the Sea is well over $1.5 billion, who will pick up the difference?

It has been suggested that the 1998 Salton Sea Reclamation Act (P.L. 105-372) was designed, in part, to fix the Sea under reduced inflow conditions. The Act actually says that the Secretary:

> "shall apply assumptions regarding water inflows into the Salton Sea Basin that encourage water conservation, account for transfers of water out of the Salton Sea Basin, and are based on a maximum likely reduction in inflows into the Salton Sea Basin which could be 800,000 acre-feet or less per year."

The Secretary was to develop a report, with the Salton Sea Authority, that evaluated restoration options under reduced inflow conditions. Such a report is still forthcoming. In a recent letter to the Secretary of Interior, even the Sea's greatest legislative supporters acknowledge that the report should evaluate multiple inflow conditions (see Exhibit 9, Letter to Secretary Norton from Congressional Salton Sea Task Force). Evaluating those conditions is an order of magnitude less committal than paying for restoration under those conditions.

Based on my experience working the halls of government to seek support for restoration, I find it unlikely that Congress and the State of California would be willing to fund a multi-billion dollar restoration project. But even if they were, a restoration project massive enough to mitigate the impacts of reduced inflows caused by the proposed project would likely be technically infeasible. With a sea that is becoming much smaller and saltier, restoration must become much larger and much more complex. Under such a scenario, marshaling the necessary massive authorizations and appropriations from government will take time. Designing and permitting such a massive project will take time. And to build a large, complicated project and probably to do so in the deepest, most expensive and most seismically risky areas of the Sea will take

time. Even if all of the political and financial support were available within a few years, it is unlikely that restoration could occur in time to preserve a fishery at the Sea and the values that the fishery supports.

If not full restoration, let's try partial restoration or build fish ponds/hatcheries

Another solution has been proposed by the Pacific Institute: create a small impoundment to provide a fishery for fish-eating birds. The Pacific Institute proposal assumes that the water transfer will be accomplished through on-farm conservation, with resulting major reductions of inflow. It is a serious proposal, serious enough that the Salton Sea Science Office assembled a group of experts to evaluate the concept. The experts found the proposal very unsatisfactory. Major concerns included:

- The Likelihood of creating a Selenium sump, an issue that has attracted much attention since the bird deformities and reproductive failures at the Kesterson Reservoir.
- Concentrating nearly the same nutrient load into a body of water that is much smaller than the Sea, thus aggravating eutrophic conditions.
- Exposing large areas of additional shoreline around the remaining, hypersaline water body because of evaporative losses of the partial fix and constructed wetlands.
- Lastly, this was no easy, cheap fix. Cost estimates ranged well over $1 billion. The partial-Sea solution carries a full-Sea restoration price tag.

The Transfer Draft EIR included a similar partial-fix solution: Habitat Conservation Plan method #1, Hatchery and Habitat Replacement to mitigate impacts. The Transfer EIR provided little in the way of details, stating instead "the specific approach for minimizing and mitigating the impacts …on birds have not been defined". In any case, the California Department of Fish and Game and the U.S. Fish and Wildlife Service have indicated that the proposed hatchery and habitat replacement mitigation plan would not successfully mitigate impacts on endangered species. It is my understanding that the mitigation strategy has been eliminated from further consideration.

The Claim that the "Proposed Project Merely Speeds the Inevitable Up"

The Transfer EIR addresses the various resource areas that would be affected by the Proposed Project. However, much of the public discussion about the effects of the transfer revolves around "temporal" impacts. These are the impacts associated with speeding up the decline of a declining resource.

If restoration is not implemented, the Sea's fishery will collapse. Under a projection of historic average inflows, of about 1.34 million-acre feet per year, the Sea's fishery will collapse after 2060 (see Figure 1, Exhibit 8, Draft Assessment of Salinity and Elevation Control for Varied Inflow). The Transfer EIR does not measure its impacts against the historic average, instead, a new baseline is defined. The new baseline is about 1.23 million-acre feet per year. Under the new baseline, the fishery collapses by about 2023 (see Figure 1, Exhibit 8, Draft Assessment of Salinity and Elevation Control for Varied Inflow). Under the Proposed Project, the temporal impact, i.e. the difference between the collapse of the fishery under the transfer proposed project inflows and the collapse of the fishery compared to historic average inflows is about 50 years. When the Proposed project is compared, as the Transfer EIR does, to the new baseline, the impact is about 11 or 12 years. I have some serious concerns about the baseline used in the Transfer EIR. The Authority's concerns are expressed in formal comments on the Transfer EIR (see Exhibit 10). I believe

the baseline used significantly understates the temporal and other inflow-related impacts.

Project proponents argue that that if the Sea is going to die anyway, and the transfer speeds the process up, what is the harm? This is the "you are going to die anyway in sixty years, mind if I shoot and kill you today argument." To add another wrinkle to the argument, assume that you were going to die in fifty years of cancer. By killing you today, or in eleven years, I foreclose the opportunity that may come in the future to develop the cure for cancer. In the same way, accelerating the decline of the Sea and making it that much more complicated and expensive to restore the Sea forecloses an opportunity to cure its ailments.

The temporal impacts are not the only impacts. The transfer document identifies impacts on other resource areas. I have significant concerns about the adequacy of impact assessment and mitigation in many other resource areas, including:

- The inadequate assessment of the irreversible impacts on restoring the Salton Sea.
- The lack of detail provided in describing mitigation of biological impacts.
- The insufficient assessment of air quality impacts and the lack of mitigation details.
- The characterization that potentially increased odors from the project are insignificant because of the small number of people who would be subject to such odors.
- The premise that relocating boat launching facilities is adequate mitigation for the loss of recreational resources.
- The premise that relocating boat launching facilities is adequate mitigation for the aesthetic impacts of a greatly receding shoreline.
- The understatement of environmental justice impacts (no impacts are described in the wealthier San Diego County and most of the negative impacts are found in the poorer Imperial County and eastern Coachella Valley).

The concerns described above are similar to those expressed through Resolutions of Concern Regarding the Effect of Water Transfers on the Salton Sea (see Exhibit 5, Salton Sea Authority Resolution No. 02-02 and Exhibit 11, Coachella Valley Association of Governments Resolution No. 02-002).

The Coachella Valley Association of Governments adopted its resolution after hearing about potential for airborne dust. The resolution was developed in consultation with the development community, the Coachella Valleys' cities, Riverside County, the Coachella Valley Water District and the Torres Martinez Desert Cahuilla Tribe.

The Authority's resolution is similar. The Salton Sea Authority Board of Directors unanimously approved it on March 28, 2002. The Board passed the resolution after hearing testimony from CVAG's representative, residents around the Sea and environmental organizations. Notably, residents around the Sea were able to compile a petition of more than 1100 names to present to the Salton Sea Authority Board to urge adoption of the resolution (see Exhibit 12: Memorandum from Linda Quesnell, Executive Secretary of the Salton Sea Authority regarding Petitions associated with the Water Transfer). Through their resolutions, both the Salton Sea Authority and Coachella Valley Association of Governments resolve to oppose projects that

significantly lower the level of the Salton Sea. Both resolutions stress compliance with environmental laws and adequate mitigation of impacts.

Is Restoration Possible Anyway?

Yes. There are proven methods to withdraw salt from salt water. Restoration is very feasible under inflows close to the historic average (see Exhibit 8: Draft Assessment of Salinity and Elevation Control for Varied Inflow). Solar evaporation ponds have been used for millennia to extract salt from salt water. The Salton Sea Authority, in partnership with the Bureau of Reclamation, has constructed a solar evaporation pond pilot project at the Sea and is testing salt disposal techniques at another pilot project at the Sea. Additionally, we recently initiated a joint project with Cal Energy to use some of their waste heat from their geothermal plants at the Sea to test a desalinization process. Under continuation of historic average inflows, restoration is certainly possible.

Is it politically possible? Ten years ago, there may have been many voices that said no. Today, there is a larger chorus of voices that say yes. Five years ago, the Salton Sea Authority had assembled less than $100,000 to support restoration. Today, over twenty million dollars has been authorized, appropriated and/or expended to support restoration This funding has been used in a very cost effective manner to not only run pilot projects but to also support the important work of the Salton Sea Science Office and to attack some of the more challenging problems facing the Sea such as wildlife disease, and shoreline cleanup. In collaboration with the University of Redlands, we have started an education project for middle and high schools and have also started work with KentSeaTech on the problem of eutrophication. Ten or fifteen years ago, few, or perhaps no national and statewide environmental groups stood up to defend the Salton Sea. Today nearly every major environmental group in the state is weighing in on the importance of the Sea, as evidenced in the parties participating in the current State Water Resources Control Board hearings. The work of late Congressmen Sonny Bono and George Brown began much of the restoration initiatives underway.

After the untimely death of Sonny Bono, the Salton Sea Reclamation Act was passed. The Act, for the first time, put the federal government on record to proactively plan for restoration. The Act and the Secretary of Interior kicked off an intensive scientific process that has provided a wealth of information and insight about this valuable and complex ecosystem.

Congresswoman Mary Bono, Congressman Duncan Hunter, Congressman Ken Calvert and Congressman Jerry Lewis, as members of the Congressional Salton Sea Task Force, have continued their support for restoration. Support for addressing Salton Sea related issues has increased by the state of California as well, with Secretary of Resources Mary Nichols supporting a budget change proposal that ultimately provides additional resources to the Department of Fish and Game, Department of Water Resources and Regional Water Quality Control Board to address Salton Sea issues.

Conclusion

The Sea is a critical environmental resource. Restoration of the Sea is made extremely costly and, very likely, impractical with major reductions of inflow. The Proposed Project has significant detrimental impacts on the Sea. Those impacts should be avoided, through pursuing conservation alternatives that do not reduce inflows to the Sea, or they should be fully mitigated. The Authority has been diligently testing and demonstrating projects and programs to improve the Sea and, with your continued support, is committed to its restoration.

Exhibit Identification Index

Exhibit No.	Description
1	Salton Sea Authority Background
2	Tom Kirk Qualifications
3	Salton Sea Authority Resolution No. 02-02
4	Excerpts from "The Guide to the Salton Sea Restoration Project Alternatives"
5	Riverside Press Enterprise Article dated May 31, 2002, *Water pits land against sea*
6	Desert Sun Article dated June 5, 2002, *Water transfer*

rhetoric shifts to land

7 Conservation Methods Powerpoint Presentation

8 Excerpts from "Draft Assessment of Salinity and Elevation Control for Varied Inflow

9 Letter to Secretary Norton from Congressional Salton Sea Task Force

10 Salton Sea Authority Comments on Transfer EIS/EIR

11 CVAG Resolution No. 02-002

12 Memorandum from Linda Quesnell, Executive Secretary of the Salton Sea Authority regarding Petitions Associated with the Water Transfer

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[1] The Imperial Irrigation District and San Diego County Water Authority recently testified before the State Water Resources Control Board that the Proposed Project's major proposed mitigation, or Habitat Conservation Plan #1, the "fish ponds", will be eliminated because the wildlife agencies determined they were inadequate mitigation. To date, few details have been provided about how the IID Water Conservation and Transfer Project will be modified to account for this major development.

[2] As described in the IID Conservation and Transfer Draft EIS.